

CLAIM AMENDMENTS

Claims 1-17 and 22-25 are pending. Claims 18-21 are canceled; claims 22-25 are newly added; and claims 1, 3-5, 11, 12, 14 and 15 are amended herein.

1 1 (currently amended): An actuator latch device of a hard disk drive for locking an actuator
2 to prevent movement of the actuator, when a magnetic head installed on the actuator is parked in a
3 parking area of a hard disk, the actuator latch device comprising:

4 a locking protrusion provided on an end portion of the actuator opposite an end on which said
5 magnetic head is installed;

6 a stopping guard having a pair of hooking portions for restricting a pivot range of the actuator
7 by limiting the range of horizontal movement of said locking protrusion;

8 a latch lever pivotaly installed on said stopping guard ~~allowed~~ to pivot around an axis; and

9 a latch lever driving means for driving said latch lever, said latch lever being driven by said
10 latch lever driving means to a locking position to prevent the actuator from rotating when said
11 magnetic head is parked in said parking area by moving one end of the latch lever to a position for
12 interfering with the horizontal movement of said locking protrusion.

1 2 (original): The device as claimed in claim 1, wherein the latch lever driving means is
2 provided with a coil wound around a second end of the latch lever.

1 3 (currently amended): The device as claimed in claim 1, wherein the latch lever ~~driving~~

2 means is provided with an interference part attached to said one end of the latch lever, said
3 interference part trapping said locking protrusion against one of said hooking portions of said
4 stopping guard when said magnetic head is parked in said parking area.

1 4 (currently amended): The device as claimed in claim 2, wherein the latch lever ~~driving~~
2 means is provided with an interference part attached to said one end of the latch lever, said
3 interference part trapping said locking protrusion against one of said hooking portions of said
4 stopping guard when said magnetic head is parked in said parking area.

1 5 (currently amended): The device as claimed in claim 3, wherein said interference part
2 includes a [[step]] stepped part having an inclined surface over which said locking protrusion slides
3 when said magnetic head is to be parked in said parking area.

1 6 (currently amended): The device as claimed in claim 4, wherein said interference part
2 includes a [[step]] stepped part having an inclined surface over which said locking protrusion slides
3 when said magnetic head is to be parked in said parking area.

1 7 (original): The device as claimed in claim 2, wherein said actuator latch device further
2 comprises:

3 an upper yoke and a corresponding first magnet positioned above a bobbin of said actuator;

4 a lower yoke and a corresponding second magnet positioned below said bobbin, wherein said

5 lower yoke includes a first coupling portion for magnetically attracting said second end of the latch
6 lever when said magnetic head is to be parked in said parking area and said upper yoke includes a
7 second coupling portion for magnetically attracting said second end of the latch lever when said
8 magnetic head is to be positioned over a recording/reproducing area of said hard disk.

1 8 (original): The device as claimed in claim 7, wherein said latch lever driving means
2 provides a first current to said coil when said latch lever is to be pivoted to said locking position for
3 preventing the rotation of said actuator, and provides a second current, opposite to said first current,
4 to said coil when said latch lever is to be pivoted to an unlocking position for enabling said actuator
5 to be rotated.

1 9 (original): The device as claimed in claim 7, wherein the latch lever driving means is
2 provided with an interference part attached to said one end of the latch lever, said interference part
3 trapping said locking protrusion against one of said hooking portions of said stopping guard when
4 said magnetic head is parked in said parking area.

1 10 (original): The device as claimed in claim 8, wherein the latch lever driving means is
2 provided with an interference part attached to said one end of the latch lever, said interference part
3 trapping said locking protrusion against one of said hooking portions of said stopping guard when
4 said magnetic head is parked in said parking area.

1 11 (currently amended): The device as claimed in claim 9, wherein said interference part
2 includes a [[step]] stepped part having an inclined surface over which said locking protrusion slides
3 when said magnetic head is to be parked in said parking area.

1 12 (currently amended): The device as claimed in claim 10, wherein said interference part
2 includes a [[step]] stepped part having an inclined surface over which said locking protrusion slides
3 when said magnetic head is to be parked in said parking area.

1 13 (original): An actuator latch device of a hard disk drive for locking an actuator to prevent
2 movement of the actuator, when a magnetic head installed on the actuator is parked in a parking area
3 of a hard disk, the actuator latch device comprising:

4 a locking protrusion extending from a bobbin of said actuator;

5 a first stop for limiting pivotal movement of the actuator in a first direction, said first stop
6 coming into contact with said locking protrusion when said magnetic head is moved to said parking
7 position;

8 an upper yoke and a corresponding first magnet positioned above said bobbin;

9 a lower yoke and a corresponding second magnet positioned below said bobbin, wherein said
10 upper yoke includes a first extended coupling portion and said lower yoke includes a second
11 extended coupling portion;

12 a latch lever pivotally installed adjacent to said upper and lower yokes;

13 an interference part attached to a first end of said latch lever;

14 a coil wound around a second end of said latch lever; and

15 a power supply for driving said latch lever, wherein said second end of said latch lever is
16 magnetically attracted to said second extended coupling portion of said lower yoke when said power
17 supply provides a first current to said coil, and said second end of said latch lever is magnetically
18 attracted to said first extended coupling portion of said upper yoke when said power supply provides
19 a second current, opposite to said first current, to said coil.

1 14 (currently amended): The device as claimed in claim 13, wherein said interference part
2 includes a [[step]] stepped part having an inclined surface over which said locking protrusion slides
3 when said magnetic head is to be parked in said parking area.

1 15 (currently amended): The device as claimed in claim 14, wherein said [[step]] stepped
2 part traps said locking protrusion against said first stop when said magnetic head is parked in said
3 parking area and releases said locking protrusion when said actuator is enabled to position said
4 magnetic head over a recording/reproducing area of said hard disk.

1 16 (original): The device as claimed in claim 15, further comprising:
2 a second stop for limiting the pivotal movement of the actuator in a second direction, by
3 limiting the movement of said locking protrusion as said actuator rotates in said second direction.

1 17 (original): The device as claimed in claim 16, further comprising:

2 a stopping guard having a pivot shaft installed thereon, said latch lever being pivotally
3 installed on said pivot shaft and said first and second stops are hook shaped extensions extending
4 from opposite ends of said stopping guard.

Claims 18-21 (canceled)

1 22 (new): An actuator latch device of a hard disk drive for locking an actuator to prevent
2 movement of the actuator, when a magnetic head installed on the actuator is parked in a parking area
3 of a hard disk, the actuator latch device comprising:

4 a locking protrusion provided on an end portion of the actuator opposite an end on which said
5 magnetic head is installed;

6 a stopping guard for restricting a pivot range of the actuator by limiting the range of
7 horizontal movement of said locking protrusion;

8 a rotation shaft provided on the stopping guard;

9 a latch lever pivotally installed on said rotation shaft; and

10 a latch lever driving means for driving said latch lever, said latch lever being driven by said
11 latch lever driving means to a locking position to engage one end of said latch lever with said locking
12 protrusion to prevent the actuator from rotating when said magnetic head is parked in said parking
13 area.

1 23 (new): The device as claimed in claim 22, wherein the latch lever driving means is

provided with a coil wound around another end of the latch lever.

24 (new): An actuator latch device of a hard disk drive for locking an actuator to prevent movement of the actuator, when a magnetic head installed on the actuator is parked in a parking area of a hard disk, the actuator latch device comprising:

a locking protrusion extending rearwardly from an end portion of the actuator opposite an end on which said magnetic head is installed;

a stopping guard for restricting a pivot range of the actuator by limiting the range of horizontal movement of said locking protrusion in two directions;

a rotation shaft installed on the stopping guard and extending toward said actuator;

a latch lever pivotally installed on said rotation shaft between said actuator and said stopping guard; and

a latch lever driving means for driving said latch lever, said latch lever being driven by said latch lever driving means to a locking position to engage a first end of said latch lever with said locking protrusion to trap said locking protrusion between said stopping guard and said first end of said latch lever.

25 (new): The device as claimed in claim 24, wherein the latch lever driving means comprises:

coil wound around a second end of the latch lever;

a lower yoke including a first coupling portion for magnetically attracting said second end

5 of the latch lever when said magnetic head is to be parked in said parking area;

6 an upper yoke including a second coupling portion for magnetically attracting said second
7 end of the latch lever when said magnetic head is to be positioned over a recording/reproducing area
8 of said hard disk;

9 a power supply providing a first current to said coil when said latch lever is to be pivoted to
10 said locking position for preventing the rotation of said actuator, and providing a second current,
11 opposite to said first current, to said coil when said latch lever is to be pivoted to an unlocking
12 position for enabling said actuator to be rotated.